

FIG. 1

FIG. 2

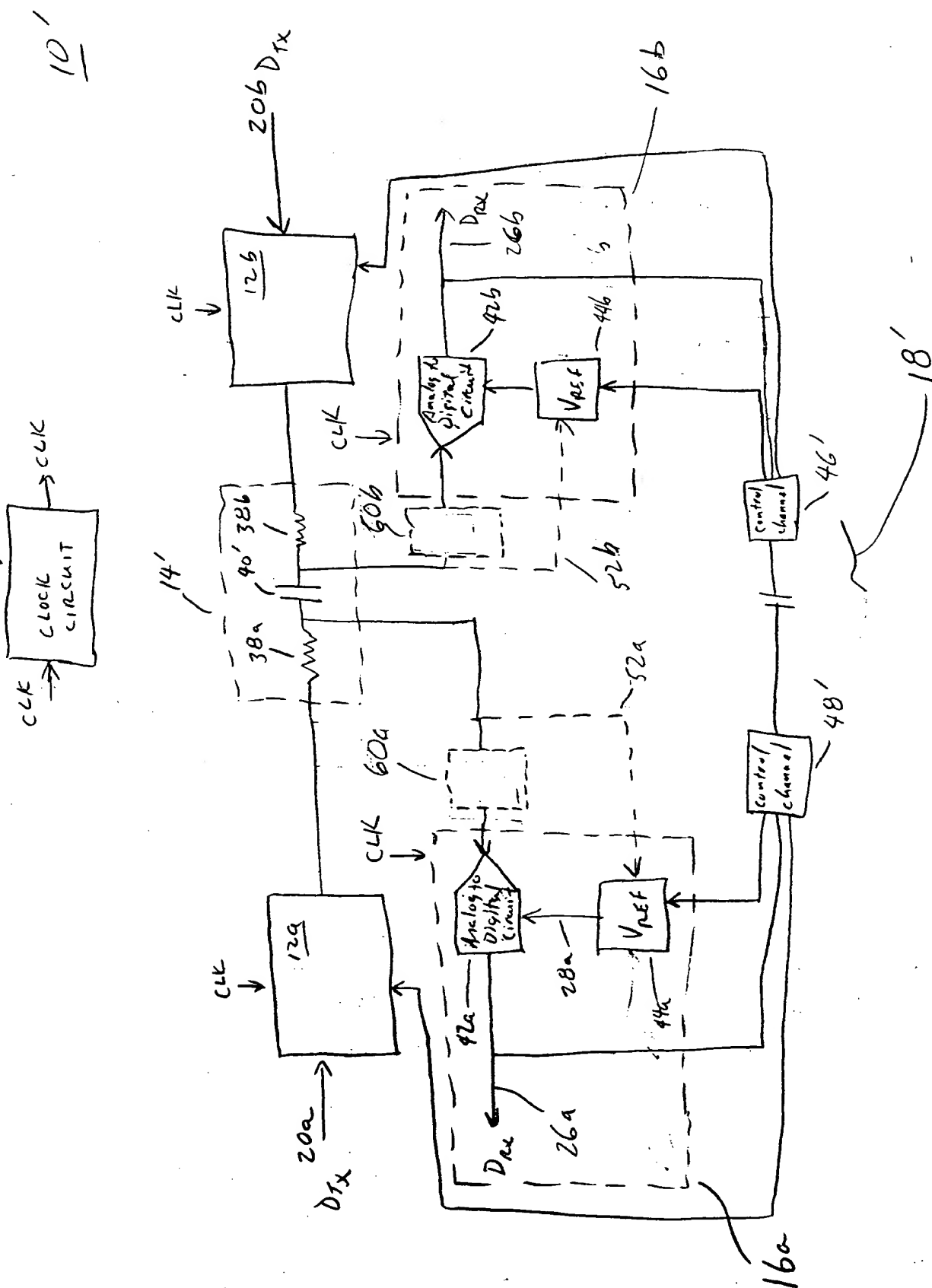


FIG. 2

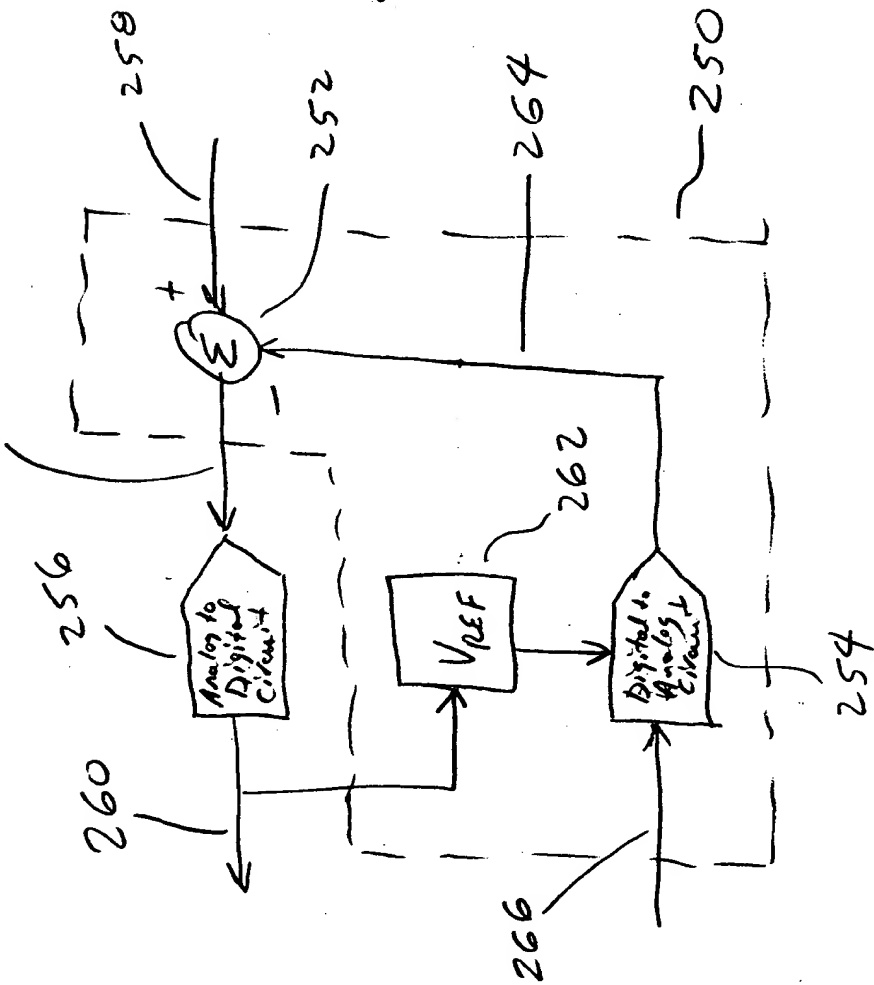


FIG. 3

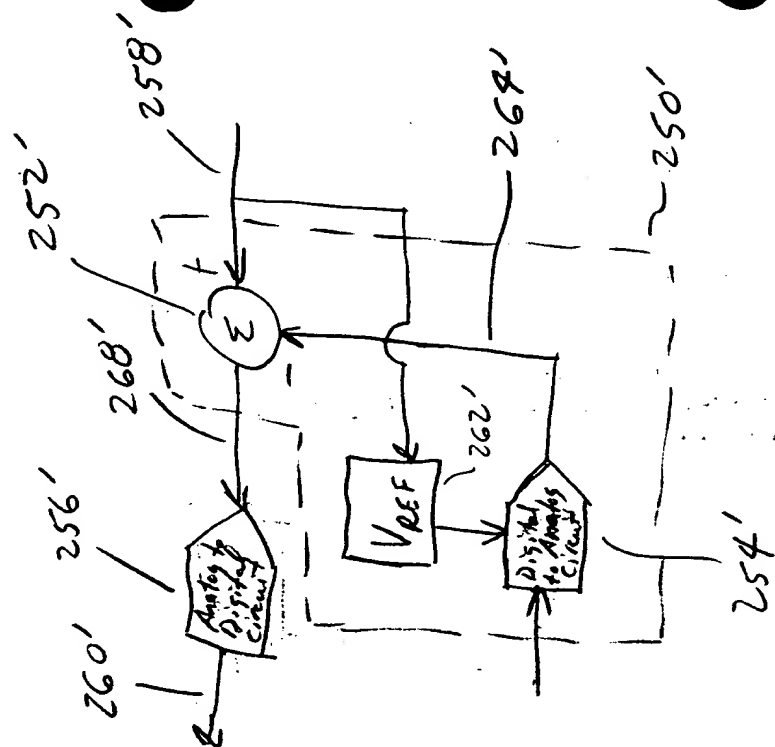


FIG. 4

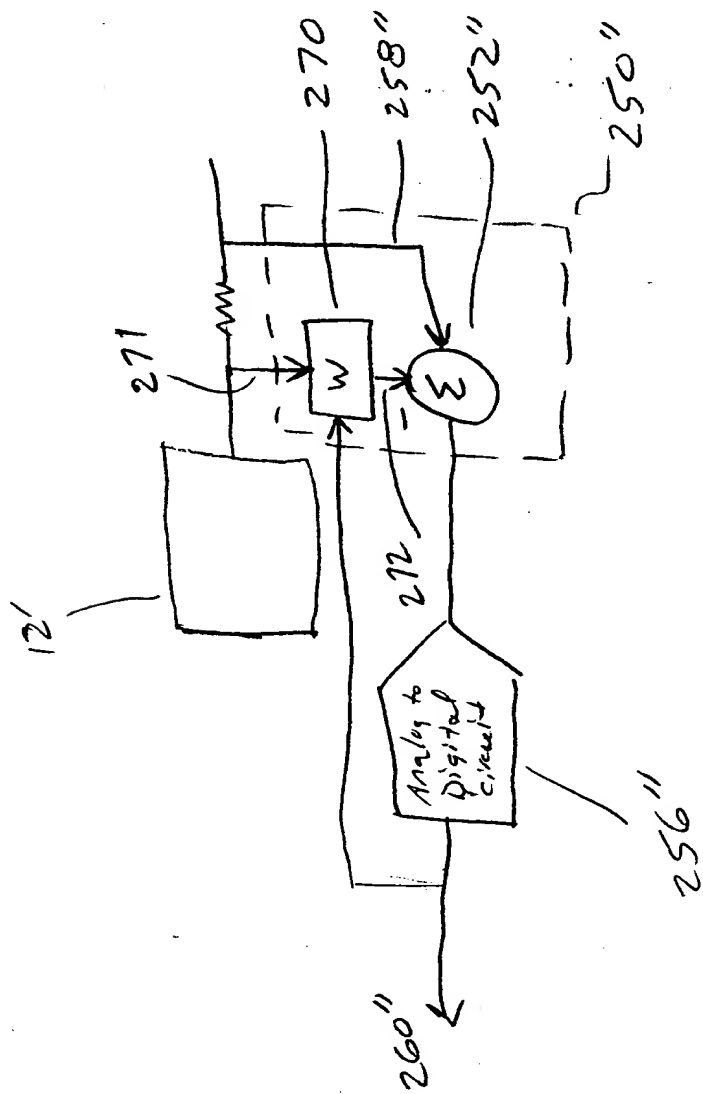
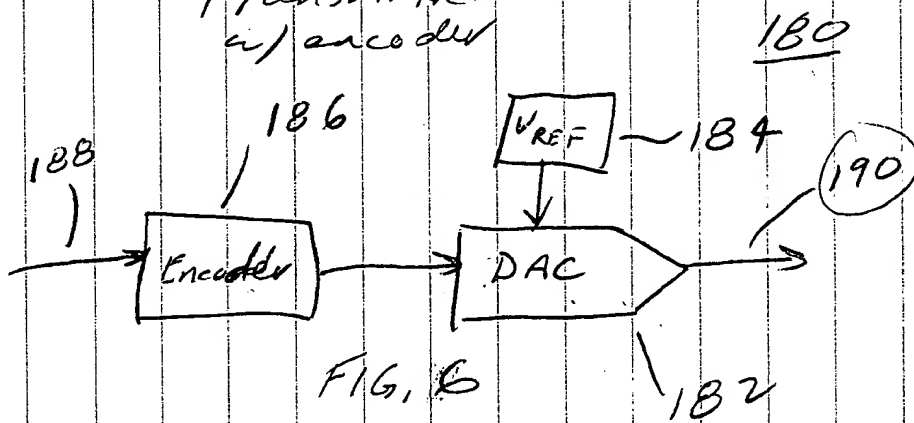


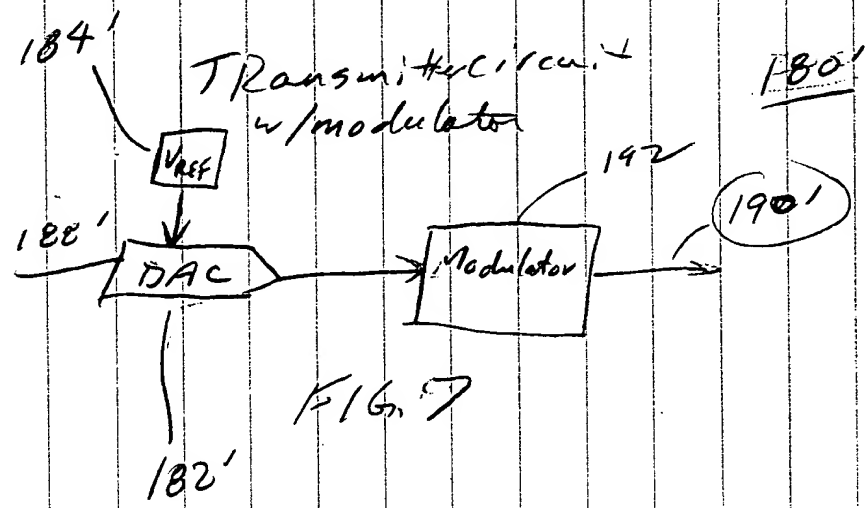
FIG. 5

TOPS FORM
7551 WHITE
7552 CANARY

Transmitter circuit
w/ encoder



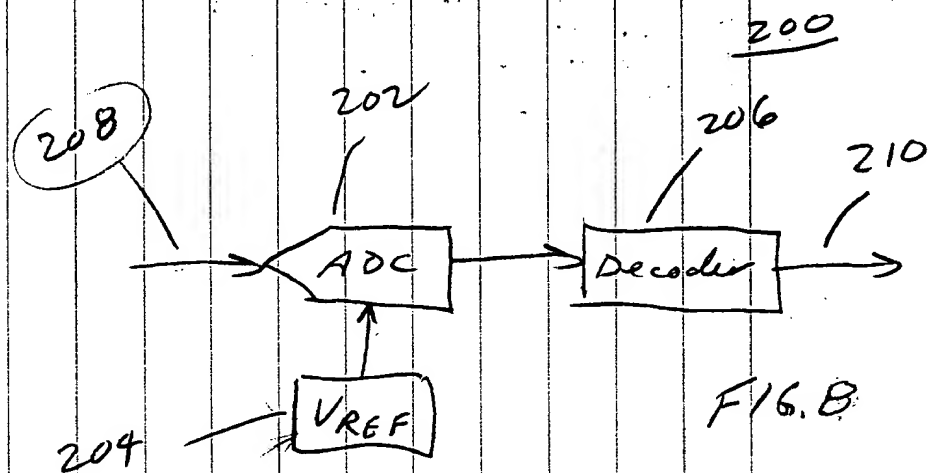
Transmitter circuit
w/ modulator



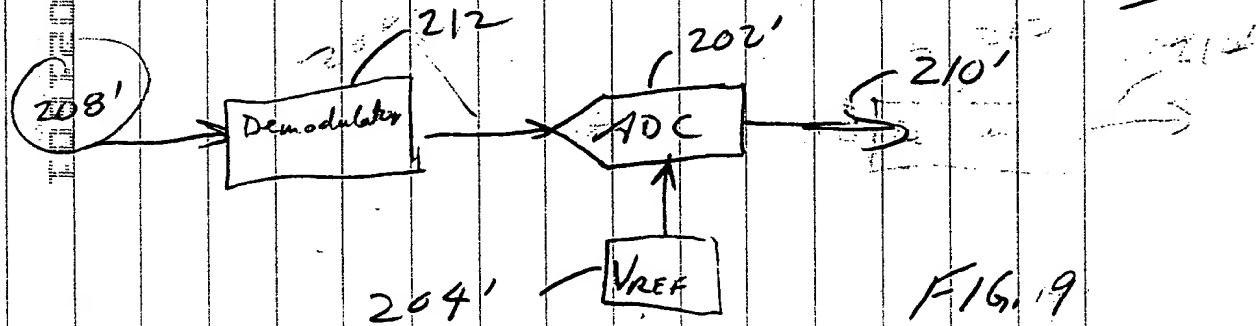
09782211.024504

688

Receive u/decoder



Receive u/demodulator 200'



7088

Apr. 15, 1999

ADSL Barrier Communications.

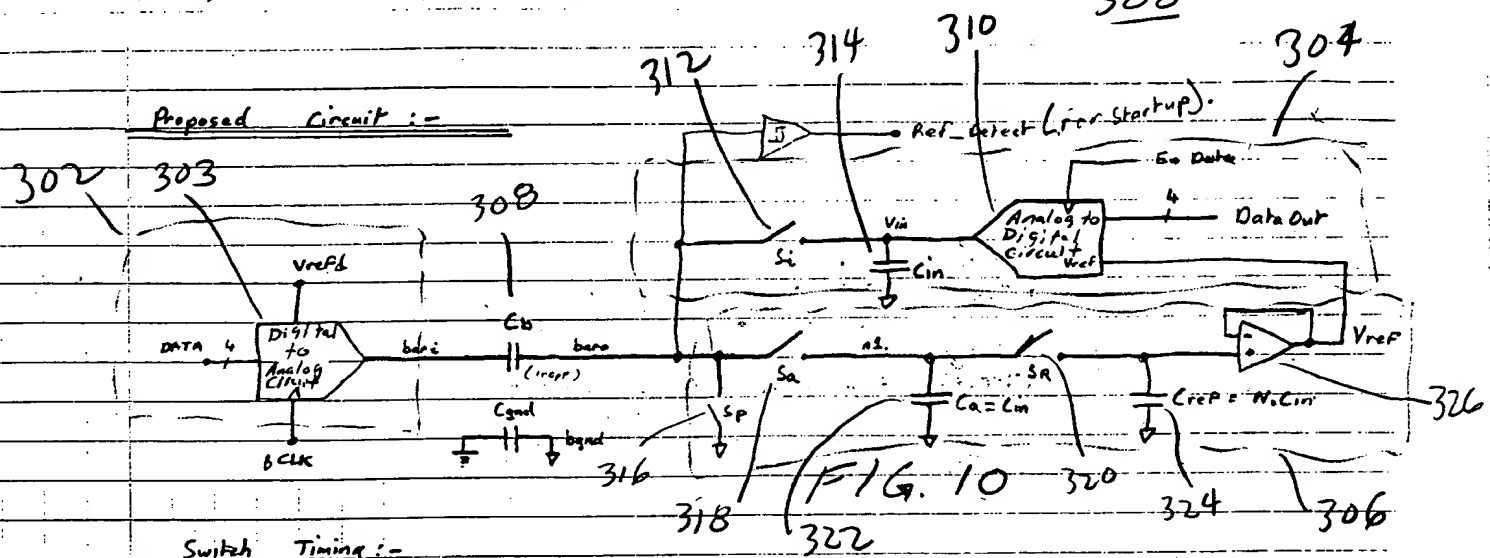


Fig. 11

~~Cref is chosen to be $N \times Ca$. This means that Vref is a moving average of the previous N Ref pulses. This allows some immunity to 'dud' Ref pulses. Without averaging, a 'dud' Ref pulse could wipe out successive data cycles. For a 4-bit converter, N should be greater than or equal to 16. This allows every Ref error to be less than one LSB size. The exact value of N is not terribly important.~~

WITNESSED AND UNDERSTOOD

SIGNED

DATE

SIGNED

SIGNED

DATE

DATE

888

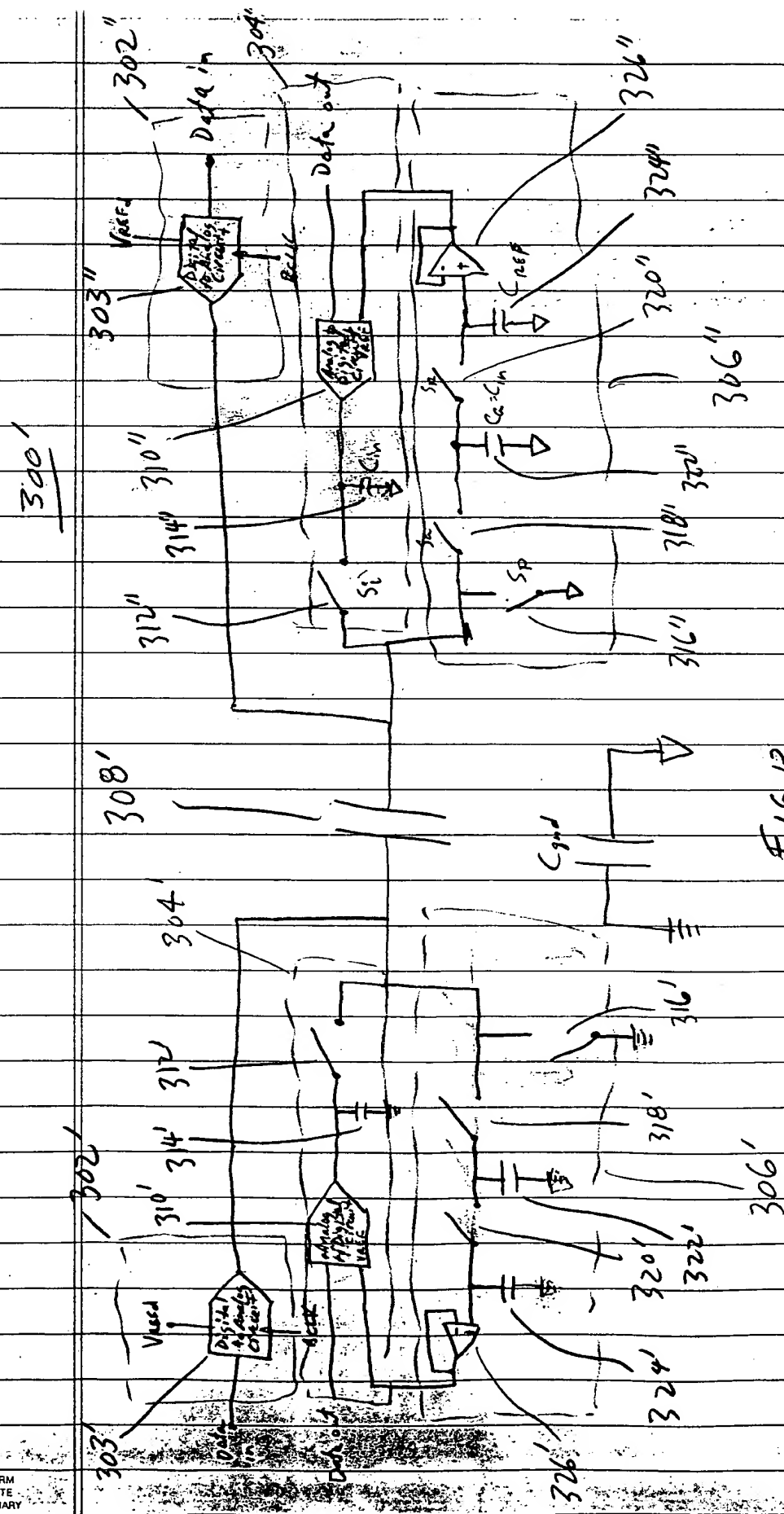


FIG. 12

TOP SECRET